



Launch Mission Execution Forecast

Mission: Falcon 9 NASA Crew-3

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Forecast Discussion: Strong surface low off the coast of the Carolinas this morning moves out into the open Atlantic early this week as high pressure builds across the eastern third of the US. The Spaceport will continue to see dry, cool, and breezy conditions as a result for the first half of the week. Low level winds will veer off the Atlantic as the high moves east, bringing a few more clouds into the coast. This pattern will continue into the primary launch window Wednesday night, and the main launch concern will be onshore moving Cumulus Clouds.

The high will slide out into the Atlantic on Thursday, bringing increasing moisture and clouds along with isolated showers in the vicinity for the backup window Thursday night. The main launch concerns for Thursday night will be Cumulus Clouds and Flight Through Precipitation.

The next storm system moves across the northern tier of the US late week, bringing another cold front through the eastern third of the US and approaching Florida late on Friday. There are some timing differences between models with this boundary, but overall expect better coverage of showers, and therefore a higher risk of Cumulus Clouds and Flight Through Precipitation, for the secondary backup window Friday night.

Launch Day	Probability of Violating Weather Constraints							
	20%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions						Additional Risk Criteria	
	Weather:	None	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Visibility:	7 miles	Stratocumulus	Scattered	3,500	7,000	Ascent Corridor Recovery:	Low
	Temp/Humidity:	73°F / 70%	Cirrus	Scattered	30,000	35,000	Booster Recovery Weather:	Low
Liftoff Winds (200'):	070° 10 - 15 mph					Solar Activity:	Low	
24-Hour Delay	Probability of Violating Weather Constraints							
	30%	Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation						
	Weather Conditions						Additional Risk Criteria	
	Weather:	Isolated Showers	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Visibility:	7 miles	Cumulus	Scattered	3,000	8,000	Ascent Corridor Recovery:	Moderate
	Temp/Humidity:	74°F / 80%	Cirrus	Scattered	25,000	35,000	Booster Recovery Weather:	Low
Liftoff Winds (200'):	120° 7 - 12 mph					Solar Activity:	Low	
48-Hour Delay	Probability of Violating Weather Constraints							
	40%	Primary Concerns: Cumulus Cloud Rule, Flight Through Precipitation						
	Weather Conditions						Additional Risk Criteria	
	Weather:	Scattered Showers	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Visibility:	7 miles	Cumulus	Scattered	3,000	12,000	Ascent Corridor Recovery:	Moderate
	Temp/Humidity:	73°F / 80%	Cirrocumulus	Broken	25,000	35,000	Booster Recovery Weather:	Low
Liftoff Winds (200'):	160° 7 - 12 mph					Solar Activity:	Low	